Title: LOW-CHOLESTEROL SHRIMP AND METHOD OF OBTAINING SAME Applicant: HIGUERA CIAPARA, et al.

Express Mail No: EV310 126 587US Filed 22 February 2005

Atty Docket No: 73294-010200/US

CLAIMS

Having described our invention, we consider a novelty and this claim of our property the contents of the following claims:

5

10

15

20

25

- 1. A product, low-cholesterol shrimp, which contains less cholesterol than its natural counterpart according to the requirements set forth by the Food and Drug Administration for reduced-cholesterol products (75% or less cholesterol than the natural product), and low-cholesterol (less than 24 mg of cholesterol per edible portion).
- 2. A product, low-cholesterol shrimp, with significantly less cholesterol content than its natural counterpart, adequate for human consumption, with the same nutritional properties than the natural product, i.e., a protein content from 15 to 25% and a fat content of less than 1%; a mineral content of 1-3% and a moisture content of 50-80%, which possesses sensory and overall sensory properties acceptable to the consumer.
- 3. The product in Claim 1, as whole shrimp in any of its commercial sizes, U-10, U-12, U-15, 16-20, 21-25, 26-30, 31-35, 31/40, 36-40, 41-50, 51-60, 61-70, 71-80 and over 80.
 - 4. The product in Claim 1 as whole shrimp, preferably in 16/20 size.
- 5. The use of the claimed product, low-cholesterol shrimp, as a ready-to-eat product as well as its use as a flavor enhancer or its use in salads or other prepared dishes.
- 6. The process to obtain a low-cholesterol shrimp, which consists of dehydrating the shrimp and subjecting it to supercritical extraction using a supercritical fluid until the cholesterol content is reduced to a desirable concentration and later rehydrated and cooked.
- 7. The process in Claim 6 which does not require a size reduction of the food and is dehydrated to a moisture content of 1-10%.
- 8. The process in Claim 6, which consists of dehydrating the shrimp, preferably by freeze-drying to a moisture content from 1-10%, in which the frozen shrimp are placed in a freeze-drier chamber which is initially set at a temperature

Applicant: HIGUERA CIAPARA, et al. Express Mail No: EV310 126 587US Filed 22 February 2005

Atty Docket No: 73294-010200/US

of -40 °C in which the equipment reaches a vacuum of 0,1 mm Hg and the following set of conditions is applied:

	Temperature	Time
	°C	hs
5	29	1
	0	1
	50	4-5 ^a
	35	15-20 ^b
	25	1-3 °

15

9. The process in Claim 6, whereby the shrimp is preferably rehydrated under a vacuum (not less than 533,4 mm Hg) at room temperature, por a period of 1-5 hours, undergoing a relation of 1 to 10 mL of water per gram of shrimp.

^a The time will depend on the vacuum achieved, which should never be above 0,2 mm Hg.

^b The time will depend on the shrimp reaching a maximum temperature of 5-10 °C.

^c The final condition will depend on the time required for the internal shrimp temperature to equal the surface temperature.